Water

2013 Operating and Capital Budgets

and

Forecasts

London
CANADA

Approved

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Managing Director, Engineering and City Engineer

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RECOMMENDATIONS

That, on the recommendation of the Managing Director, Engineering and City Engineer, the following actions be taken with respect to the 2013 Operating Budget, 2013 Capital Budget and associated forecasts for Water Services:

(a) the 2013 Operating Budget for Water Services **BE APPROVED** as submitted;

(b) the 2014 - 2017 Operating Forecast for Water Services **BE RECEIVED** for information;

(c) the 2013 Capital Budget for Water Services **BE APPROVED** as submitted;

(d) the 2014 - 2022 Capital Forecast for Water Services **BE RECEIVED** for information;

(e) all rates and charges related to the provision of Water Services **BE INCREASED** by 8%, effective January 1, 2013; and

(f) the proposed by-law to amend the Water Rates and Charges By-law **BE INTRODUCED** at the Municipal Council meeting on November 20, 2012 to effect the rates and charges noted in (e), above.

Water
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EXECUTIVE SUMMARY

The proposed 2013 Water operating and capital budgets will continue to maintain *London's Advantage* of a safe and reliable water supply for this and future generations of Londoners. Administration has prepared the 2013 operating and capital budget based on the financial sustainability rate plan endorsed by Council during the development of the 2012 budget. This will result in an 8% rate increase in 2013.

The average cost to the homeowner for 2013 will increase by $25 per year (based on consumption of 188.1 m^3). At the proposed rates in 2013 the homeowner's cost for the year will be $336 or 92 cents per day. It should be noted that average costs may be reduced reflecting the recent trend in declining consumption, as customers reduce their water use.

The operating and capital work plans represent a balanced approach to the installation of new infrastructure in conjunction with the Growth Management Implementation Strategy and the investment and renewal required to sustain existing infrastructure. Reliable infrastructure and performance of the water system are key elements to economic development as well as quality-of-life and safety (fire protection and sanitation) in the community. In 2013, efforts will continue to protect water quality and improve reliability by investing in renewal of the water supply system including pipes, pumps and water meters.

Increasingly stringent standards, regulations and legislative obligations continue to require major investments in terms of staff time and financial resources. Staying abreast of regulatory developments and providing early commentary and views, although not always successful, remains a key tactic in helping to shape the broader direction and control long term costs. (Examples: Source Water Protection, corrosion control plans, intra-basin water transfers and water conservation). Utilities are continually faced with the renewal needs of an aging infrastructure and high rates of inflation, particularly for construction. Re-thinking past practices and investing in new approaches, while ensuring the reliability of the service, have become fundamental to the daily delivery of clean water.

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Financial Overview

The proposed 2013 Water operating budget presents a balanced cost/revenue plan in the amount of $62.6 million. This represents an increase of 4.8%.

The proposed operations portion of the operating budget of $41.1 million represents a 4.1% increase over 2012. However, Administration has maintained a 0% increase to the controllable costs and the 4.1% increase is related to the following uncontrollable costs:

- ✓ The outside cost of purchasing water from the Elgin Area and Lake Huron Primary Water Supply Systems which are anticipated to increase by 9% and 5% respectively (subject to Joint Board of Management approval);
- ✓ Third year of the OMERS rate increase; and
- ✓ Unsettled contract negotiations for services provided by London Hydro.

Administration continues to strive to eliminate waste, improve efficiencies, and utilize new technology in an effort to minimize operational costs. Administration believes that the operating budget has now been reduced to a point where operating targets of 0% will begin to impact service levels.

Debt servicing costs are projected to increase from $259 thousand to $283 thousand and rate supported capital funding has been increased by $1.2 million to $21.2 million. The Water Service Area continues to utilize and build its reserves in accordance with the 20 Year Water System Plan. Refer to pages 51-53 for the reserve funds used by the Water Service Area.

Water
2013 Budget and Forecast

Exhibit 1

Explanation of Changes in Expenditures	Change (000's)
The outside cost of purchasing water from the Elgin Area and Lake Huron Primary Water Supply Systems which are anticipated to increase by 9% and 5% respectively (subject to Joint Board of Management approval).	682
Decrease in general administration, other and recovered expenses primarily driven by a partial transfer of billing and administration costs to Wastewater and Treatment ($250) to continue to move gradually to full sharing of these costs.	(192)
Billing services provided by London Hydro are anticipated to increase.	776
Initiation of operating costs associated with the new Southeast Reservoir and Pumping Station and rising electricity pricing.	231
Increases in personnel and purchased services, partially offset by a decrease in equipment and rentals.	134
Operating Related	**1,631**
Increased contributions to reserve funds to reflect changes to the 20 Year Water System Plan.	206
Increase in capital levy required to fund the increase in life cycle renewal project budget, noting that the life cycle renewal project budget increased $3.7 million.	1,026
Increased debt servicing costs resulting from debt issued for prior years approved capital projects.	24
Capital Related	**1,256**
Total Expenditures Increase of 4.8% - Rate Increase of 8%	**2,887**

Water
2013 Budget and Forecast

Economic Conditions and Future Uncertainty

This budget proposes reconfiguring the allocation of capital works associated with the long term infrastructure renewal and replacement plans to achieve financial sustainability by 2018. Watermains and other water assets continue to age and degrade, irrespective of the amount of water used and other external factors. Reduced capital spending in this climate puts more people out of work. A continuing decline in the water revenue base has exceeded previous forecasts and has resulted in several year-end deficits eroding the reserve funds.

A new "Value of Water" funding model (Rate Structure Review) was initiated in 2012 to achieve financial stability and rate stability, promote conservation and encourage economic development and job retention. The proposed new funding model will be tabled as a separate document during the budget deliberations to re-establish fairness and equity among our customers and to ensure that the infrastructure which delivers the water is adequately funded. The new funding model does not affect the budget and only identifies new ways in which our customers may be billed in the future for this valuable resource to achieve the objects noted above. Inclusion of a larger fixed charge for infrastructure renewal and fire protection is intended to improve stability and possibly achieve financial sustainability more quickly.

The City Water system has not previously had any significant debt with the exception of the portion of the Regional Water debt that is attributable to the City (debt payments tied to the City's share of the Regional Water debt are made indirectly as the part of the purchase of water rate charged to the City by Regional Water). During the federal and provincial stimulus programs, the Water system did take on debt to participate along with roads and sewers to construct projects which were not in our 20 year plan. Advancing these projects was of significant benefit in leveraging rate supported funds for General Tax and Wastewater and Treatment. Borrowing for capital works may be required in the future to stabilize the Water Reserve Funds.

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There is no current federal/provincial infrastructure funding program that the Water Service Area can access with the exception of Gas Tax allocation (refer to page 32). While staff will continue to investigate possible funding programs, it is unlikely with the current senior government deficit positions that significant new and sustainable programs will emerge.

The financial model and 20 Year Water System Plan is premised on specific assumptions. If these assumptions change, then the sustainability of the water supply system could be affected positively or negatively. Factors in the model which could impact revenues or expenditures are identified below:

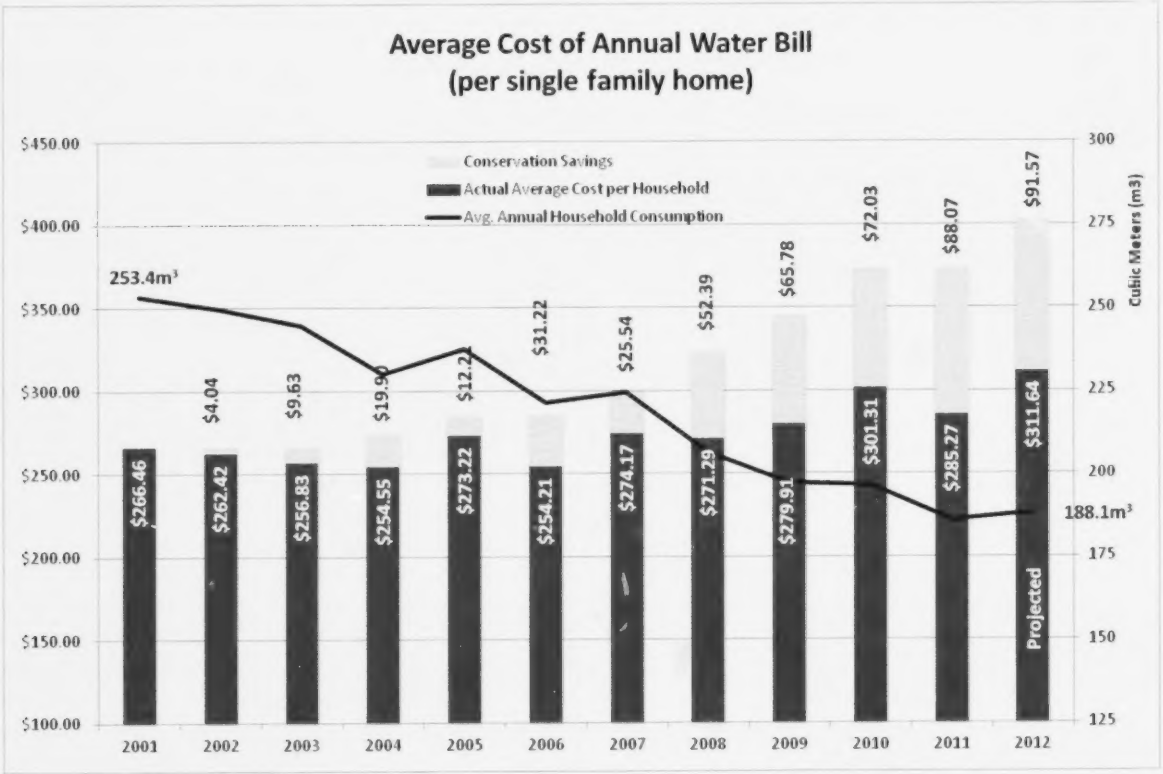
a. Water consumption – revenues are directly tied to the amount of water the City sells to its customers – declining consumption is forecasted in the model (due to conservation or reduced industrial production) even though the number of customers and businesses are forecasted to increase – consumption was decreased for the 2013 budget based on recent trends, best practices and anticipated reductions resulting from more efficient fixtures. In past years the actual decline in the consumption has significantly exceeded assumptions in the model;
b. Increases in the wholesale water purchased from the Joint Boards have been based on the previous Regional Water System financial plan – this financial plan has been updated to address higher capital costs associated with the Residue Management Facilities, electrical costs and increases in contract operations for the Elgin Area System;
c. Consumer price index and construction cost index – construction costs and administration operation costs are assumed to escalate at a blended rate of 3% in the model – higher construction cost escalation might require that annual rate increases need to be higher than 3% to achieve sustainability – since the buying power of the dollar is reduced. In the past years the Construction Cost Index has average 6% per year;
d. Non-revenue water (NRW) – in the middle of the last decade NRW was at 7.5 to 8%, whereas now we are experiencing around 10% (still below the Provincial average) – the model assumes a reduction in NRW to 9% based on enhanced leak reduction efforts and meter replacement strategy - not achieving this reduction will delay sustainability or require greater rate increases; and
e. New revenue sources – the addition of new revenue sources such as a fire protection charge, charges for various services provided to the private sector (e.g. hydrant flow testing or private hydrant maintenance) would be beneficial.

Water
2013 Budget and Forecast

Water Consumption and Conservation

Average household water usage in London is projected to decline by 26% from 2001 to 2012 (Exhibit 2).

Exhibit 2



There are a number of influencing factors responsible for this conservation trend and although the impact to utility revenues is negative the overall impacts of water consumption decreases should be seen as a very positive trend toward *Conserving the Future*, and should be encouraged.

It is anticipated that the final billed volume for 2012 will fall short of budget once again due to the continued reduction in consumption by industrial, commercial and institutional customers as a result of the soft economic recovery. The 2012 budget was based on volume of 44.5 million cubic metres (Mm^3) which is being further reduced to 43.2 Mm^3 for the proposed 2013 budget. This represents a consumption and conservation reduction of 2.9% which has been absorbed into the revenue projections for 2013.

Rate Increases Needed to Sustain the Water Utility

Administration is recommending 8% rate increases in 2013 through 2015, 7% in 2016, 6.75% in 2017, and a return to the rate of inflation thereafter (the long-term rate forecast is detailed in Exhibit 3). This would enable the Water Service Area to reach financial sustainability by 2018 which is consistent with the principles of the 20 Year Water Financial Plan. The projected rate increases are offset by an anticipated net consumption reduction of 0.75% (assuming a 1% growth factor and an average consumption reduction of 1.75%) until 2021 and an anticipated net consumption reduction of 0% (assuming a 1% growth factor and an average consumption reduction of 1%) thereafter. The future projected rate increases will be used to address the infrastructure deficit.

It should be noted that projections are based on best available information at this time. Changes in the economic climate, legislative requirements, or water consumption trends may result in modifications to the 20 Year Water Financial Plan to ensure sustainability is achieved. The introduction of a new value-based funding model may also achieve sustainability earlier or at lower rate increases.

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Exhibit 3

Long-Term Rate Forecast from 20 Year Water System Plan			
Year	**Rate Increase Required**	**Net Consumption/Growth Demand**	**Program Requirements**
2014 – 2015	8.00%	-0.75%	7.25%
2016	7.00%	-0.75%	6.25%
2017	6.75%	-0.75%	6.00%
2018	3.00%	-0.75%	2.25%

Core Service Delivery – Infrastructure Renewal, Economic Development and Growth, and Resource Protection

The Water Service Area remains proactive in initiatives to ensure that this service continues to meet the demands and expectations of customers. Existing infrastructure requires significant renewal (replacement and rehabilitation) work to close the infrastructure gap ensuring that future generations and businesses are not faced with a water system that is failing, unreliable and expensive to maintain. There is also an environmental duty, and soon there will be a regulatory requirement, to ensure that water consumption is not wasteful. Further initiatives related to water awareness and the efficient use of water have been budgeted and programs are currently being designed. The water utility has maintained a relatively good financial picture and continues to place London in the position of *Setting the Standard* for a utility which has an adequate and secure supply of high quality water. Recent declines in our revenue base (water consumption) have strained our financial position and a new funding model is required to return to financial stability.

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Exhibit 4

2013 Water Capital Plan Summary		
Category of Project	**Total ($000's)**	**Percentage**
Life Cycle Renewal	18,134	68%
Growth	3,424	13%
Service Improvement	5,170	19%
Total	**26,728**	**100%**

Water Distribution System Renewal

Two capital programs are at the centre of renewal and focus to manage the infrastructure gap to a sustainable level.

1. The Main Cleaning & Relining Program targets areas of the City where water quality (taste, colour, chlorine residual) has deteriorated due to prolonged water detention time and internal corrosion of the watermain (identification is driven in part, by water quality complaints). Cleaning and relining restores water quality and improves fire flow, while extending the life of a watermain that would otherwise have to be replaced at a much higher cost and also reduces social impacts and disruption by utilizing trenchless technologies. In recent years, this program has focused more on structural relining versus cement mortar relining.

2. The Watermain Replacement Program ensures that the distribution system remains reliable and cost effective. This program is coordinated with sewers and roads and has been re-aligned to meet Council's direction on sustainability, by shifting some funds to structural relining.

Some anticipated benefits of continuing these capital programs are a reduction in water quality complaints, extended service life of watermain (before replacement is required), reduction in the number of watermain breaks, reduction in water losses and reduction in water used for flushing, reduction in average age of system and a reduction of risk to private property damage and disruptions to the travelling public.

Meter Replacement Strategy

Water Operations continues with its water meter replacement program and meter reading strategy, concurrently with London Hydro's compliance with government legislation requiring implementation of "Smart Metering" for electric customers. The smart metering implementation by London Hydro has been completed along with a new customer service software system (SAP) to manage the new meter read data. The new system has meter management capabilities and will be interlinked with meter replacement and the City's meter work order system. The Water Meter Shop is also using new software to improve water meter change-out scheduling and customer interactions supporting the interactive telephone voice recording system and web-based appointment scheduling system.

The existing meters are beyond their optimum replacement age and are in a deteriorating condition, thereby being a source of unaccounted water and revenue loss for both Water and Sewer revenue streams. The replacement meters incorporate state-of-the-art technology, fully compatible with the automated meter reading system. Reducing the backlog of old meters scheduled for replacement continues through a long-term meter change-out program over a 10 year period. This approach will minimize spikes in the future replacement program as compared to a 1 or 2 year change-out period, ensuring sustainability of this key meter asset. By use of both temporary and full-time staff, this cost-efficient program is effectively capturing previously lost revenue associated with under-reading water meters. New meter reading technology is being used to reduce the cost of meter reading, especially since the London Hydro is no longer using the same contractor.

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Growth Projects

There are currently five growth funded projects scheduled for 2013 (excludes the Water Efficiency Program). The Water Distribution Master Plan, one design project for Wonderland Road North, two design projects for Hyde Park Road, and one construction project on Oxford Street West. The Southeast Reservoir and Pumping Station (SERPS) is expected to be fully operational in 2013. Piping modifications and new pressure regulating valves will also be continued from work started in 2012 to expand the zone to make best available use of the 22.7 million litres per day that we are contracted to purchase from the Elgin Area Water Supply System. Introduction of the new pressure zone and SERPS, not only enhances economic development opportunities in southeast London and improves service to existing customers, but also provides a more secure water supply system for the City of London and upstream communities in the Elgin Area Water Supply System. Under emergency scenarios, these new improvements will allow supply to continue to the City and Elgin communities, even if there is an interruption of supply from the Elgin Area Water Treatment Plant. With the addition of significant storage at SERPS, further opportunities for energy savings are noted below.

Risk Reduction Initiatives related to Health and Safety, Financial, Security of Supply, Environmental and Private Property

Municipal Councillors and officials have oversight responsibilities under Section 19 of the Safe Drinking Water Act, which becomes a statutory requirement on January 1, 2013. Severe penalties are possible for municipal officials who fail to act in good faith and do not exercise honesty, competence and integrity to ensure the protection and safety of the users of municipal drinking water systems. A statutory standard of care is required on the part of our elected officials to prevent waterborne disease outbreaks.

Considerable effort has been undertaken in the Water Service Area to assess risk and put in place management strategies to reduce risk and minimize the impact on our customers. Several initiatives are identified for 2013, while others are a continuation and/or expansion of work already underway. Some of the initiatives undertaken by the City reduce risk in multiple areas (e.g. structural lining of cast iron watermains improves water quality, enhances security of supply, reduces lost water or flushed water and avoids damage to private property).

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Drinking Water Quality Management System (DWQMS)

The Drinking Water Quality Management System (DWQMS) mandated by the province will assist the utility in ensuring a consistent delivery of high quality drinking water by all staff. Documentation of the numerous practices in water supply operations and maintenance and adherence to them will minimize the health risk to all our customers.

Lead Mitigation Strategy

The water in London's Distribution System has very low or undetectable levels of lead, but many homes built before 1953 are connected to the distribution system by lead service pipes. In the summer of 2006, the City of London began offering free water testing for lead, and noted elevated lead levels in samples taken from the taps of customers connected to the water distribution system by lead service pipes. Shortly thereafter, a three pronged approach to minimize lead uptake at consumers' taps was developed, consisting of education and awareness, water chemistry changes and lead service replacements. The education and awareness component of our strategy is accomplished through our free testing program and through information provided on our website, pamphlets included with the water bills and brochures delivered to older homes. With respect to water chemistry changes, the City has submitted a Corrosion Control Plan to the MOE which included pH adjustment of the water entering the City of London from the Lake Huron supply. Significant reductions in lead levels have been observed since pH elevation began in January 2008. The Elgin Area Water Treatment Plant began installing corrosion control equipment in 2011, with completion of the program expected in 2013. Although the City has had a lead replacement program since the early 1980's, additional resources were approved by Council in 2008 to accelerate the replacement of lead services either through customer or City initiated replacements. Lead service replacements have increased from approximated 250 per year prior to 2007 to over 600 per year, with a targeted average of 500 per year for the 18 year program. In addition, a significant amount of practical research is being conducted in partnership with the University of Western of Ontario and Ecole Polytechnique in Montreal to further reduce lead contribution from lead services.

Occupational Health and Safety Plans

Considerable effort has been undertaken to protect city workers as they undertake day-to-day maintenance and operational duties. Recent amendments to the Act have resulted in changes to City policy and procedures in relation to violence in the workplace or domestic violence outside of the workplace. Water Operations mobile workforce has a greater exposure to customers in their homes than most City workers. Measures continue in 2013 to limit liability.

Condition Assessment and Long Term Monitoring of Large Diameter Watermains

Due diligence requires that the Water Service Area use best practices to determine the condition of the City's largest watermains using non-destructive testing technology including acoustic fibre optic cables mounted inside the pipes, electromagnetic inspections using robotic sensors and leakage surveys using "smart ball" listening technology. Rigorous assessment of these mains will allow timely remediation of the main, extend their life and avoid catastrophic failure.

Average cost of the failure of large diameter mains as reported by the Water Research Foundation is identified to cost the community in excess of $1.5 M per break. Phase 3 of the fibre optic installation is expected to be undertaken in 2012, which will monitor the main supply line into the City from Arva to Springbank Reservoir. On-going spot inspections will continue in 2013 as part of our strategy to assess the condition of this critical infrastructure.

Leak Detection within the Distribution System

Two pilot projects have been initiated in 2012 as part of the Water Efficiency Program to identify currently undetected water leakage in the distribution system. The two pilot programs utilize "acoustic listening devices" and "real water consumption data analysis" in specific areas of the City. If successful, additional District Metering Areas will be established as part of the on-going program. The technology available with new water meters provides the capability to record and gather consumption data, time-of-use, etc. by remote means (walk-by and/or drive-by).

Reduction of Non-Revenue Water

A significant aspect of managing our financial risk is to reduce the amount of water which is delivered to the City, but not charged for. This unaccounted for water is termed "non-revenue" water. While London has an enviable ratio of billed water to purchased water (90%), there are several opportunities to improve the efficiency of the system in terms of leak reduction, billing meter accuracy, reducing breaks and early response to breaks, improved water quality to minimize flushing requirements and bulk water stations.

Hydraulic and Water Quality Modelling

To undertake modeling to assess the impact of operational changes on water quality and water pressure in the distribution system for safety of supply, fire protection and impacts on customers. Modeling efforts will also be undertaken to address energy efficiency with the objective of reducing operational costs. Transient pressure modeling will identify potentially damaging pressure surges in the distribution system and once corrected will extend the service life of pipes in the distribution system and reduce breaks.

Operational Efficiency Initiatives

The Water Service Area continues to seek out and implement new technologies bringing innovative approaches to infrastructure renewal. Below are some of the new and continuing initiatives that have been included within the proposed budget.

Improving Electrical Efficiency at the City's Pumping Stations

Funding programs announced by the Ontario Power Authority in 2011 will assist the City in undertaking studies, which should lead to more energy efficient pumping systems at the City's pumping stations. The improvements are also expected to improve customer service and reliability of the water supply. The Water Service Area is working with Environmental Program staff to undertake these funded studies in 2013.

Computer Maintenance Management System (CMMS)

Water Operations is working towards electronic maintenance management, in conjunction with the Asset Management Division. The computerized work order system will better schedule the work of Operations staff to achieve greater efficiencies, track expenditures against assets and develop readily retrievable electronic records for each water asset. Planning began in 2011 and it is expected that implementation will begin in 2012, continuing into 2013.

Trenchless Technologies - Reducing Trenching and Restoration

Trenchless technologies have been used by the Water Service Area since the mid 1990's, all the while reviewing, assessing, and implementing emerging innovative technologies and materials. Compared to open cut and surface restoration construction, trenchless methods minimize the amount of excavation required to install watermain, minimize damage to surface structures, cause less disruption of traffic and reduce noise and dust for homeowners. This technology also allows installations to be made in areas where open excavation is impractical, impossible, extremely difficult, or costly. Trenchless procedures are also more environmentally friendly because they produce less construction emissions.

Success in trenchless watermain rehabilitation projects warrants increased use of this technology. Water Operations has completed many watermain replacement projects and lead service replacements in 2012 using its directional drill equipment. Successes have been realized by continued use of its hydro-excavation equipment, which significantly decreases the amount of excavation and restoration required to undertake maintenance and repairs to watermains and water services, while safely working around hazardous utilities (electric and natural gas). Additionally, reduced impact to the travelling public and cost-saving are predicted to continue in 2013 once full implementation of recently purchased hot-mix asphalt recycling equipment is realized, providing immediate surface repairs of watermain breaks in cold weather conditions, when conventional hot-mix asphalt plants are closed for the winter.

Practical research is underway to assess innovative technologies in the area of structural lining of cast iron watermains. With increasing contractor competition in this area, the cost to rehabilitate watermains is expected to decrease somewhat allowing more watermains to be renewed, further narrowing the infrastructure gap.

Water Innovation

The Ministry of the Environment has established a new fund in 2012 that focuses on partnership between municipalities and Ontario businesses. The City has signed on as a partner on multiple projects including one focused on advanced GIS mapping and another that uses advanced research to understand and mitigate lead in drinking water. These projects are expected to be completed in 2013. Through funding from the Ontario Ministry of Economic Development and Innovation, the City has partnered with A.U.G. Signals Limited to install 7 water quality monitoring devices as a demonstration to determine and showcase the development of this innovative monitoring system. A.U.G. Signals hopes to bring international and North American water experts to view the equipment and gain valuable practical experience to bring these devices to a commercial scale.

Elgin Middlesex Pumping Station and the Southeast Reservoir and Pumping Station (SERPS) Operations

The previously approved Water Capital budget had included a project for replacement of London's pumps and ancillary equipment in the Elgin-Middlesex Pumping Station, providing supply to SERPS. Significant cost savings are expected through energy efficiency gains by the pump replacement initiative coupled with Southeast Pumping Station becoming operational, and further enhanced by more equitable operating contract terms.

Legislation Which Is Or May Impact Future Cost Of Operations

The "Licensing of Municipal Drinking Water Systems" (O. Reg. 188/07) under the *Safe Drinking Water Act, 2002* consists of 5 elements:

1. A Drinking Water Works Permit (DWWP)
2. An Accepted Operational Plan
3. Accreditation of the Operating Authority
4. A Financial Plan
5. A Permit to Take Water (PTTW)

Water
2013 Budget and Forecast

Implementation of a Drinking Water Quality Management System (DWQMS) continues. The City of London's Operational Plan was submitted and approved. The City of London's Drinking Water Works Permit and Municipal Drinking Water Licence were issued by the MOE in December 2010. Two internal audits have been completed and we are still awaiting notification of the external audit, at which time the water utility will become a fully accredited Operating Authority. A revised Financial Plan was approved May 2011 by Council and submitted to the Ministry of Municipal Affairs and Housing.

The Ontario government passed the Clean Water Act in October 2006 to protect the province's source waters which are used for municipal drinking water. In support of measures required by the legislation, the Ministry of the Environment established a grant program to fund work leading towards the development of Source Protection Plans by October 2012. While the City has benefited from the grant program, (report to ETC September 8, 2008), it is unclear at this time what the cost implications will be to Water and Wastewater Utilities when the plans are implemented. City staff have ongoing involvement in the development of the plans.

The City of London has responded to the Environmental Bill of Rights Registry posting dealing with the proposal paper on Stewardship, Leadership, Accountability – Safeguarding and Sustaining Ontario's Water Resources for Future Generations. The main concern for London revolves around the point of whether London is undertaking a transfer of water across a Great Lake basin boundary. Staff at the City of London and Regional Water Supply Systems are fully engaged with the appropriate Ministries to ensure the best interests of the City of London and other regionally supported municipalities are considered. Draft regulations are anticipated in 2012, which may have long term cost impacts on the future growth of the water supply within the City of London.

The Water Opportunities Act introduces mandatory legislation anticipated in the development of our Water Efficiency Program and Municipal Drinking Water Awareness Plan. Other key elements of the Act, incorporated within a "municipal water sustainability plan" such as an asset management plan including a maintenance management system, a financial plan and a risk assessment are either complete or well underway, thereby putting the City in a good position to meet the requirements of the legislation and the subsequent enabling regulations. Any further impacts on staff resources and financial commitments will not be clear until the regulations of The Water Opportunities Act are put forward, but it is clear that more effort will be required than was previously budgeted. For the 2011 Budget, a new staff technologist position was included to support delivery of the Water Efficiency Program which has been phased in over the last 2 years. This position was filled in 2012.

Water
2013 Budget and Forecast

Conclusion

The proposed 2013 Water Service Area operating budget presents a balanced investment/revenue plan in the amount of $62.6 million. Operating expenditures continue to be minimized in an effort to maximize capital funding so that the infrastructure gap is managed to a sustainable level.

At a daily cost of 92 cents, (based on consumption of 188.1 cubic metres of water per year) a London household has access to a reliable, high quality abundance of water to satisfy all their water needs (drinking, food preparation, sanitation, showers, laundry, dishwashing, outdoor water use etc.). Public health, fire protection, economic development and convenience further enhance *London's Advantage* through the provision of this essential service.

The legislated Water Service Area Financial Plan was re-submitted to the Ministry of Municipal Affairs and Housing June 14, 2011. The financial plan for the City's water supply system confirms our commitment to full cost recovery, financial stability, closing the water infrastructure gap, while achieving sustainability of the system in the years to come. The financial plan identifies the funding requirements to ensure a safe and sufficient water supply, while meeting all regulatory compliance requirements. Minor program and rate changes in 2012 and those proposed for 2013 do not require that the plan be re-submitted.

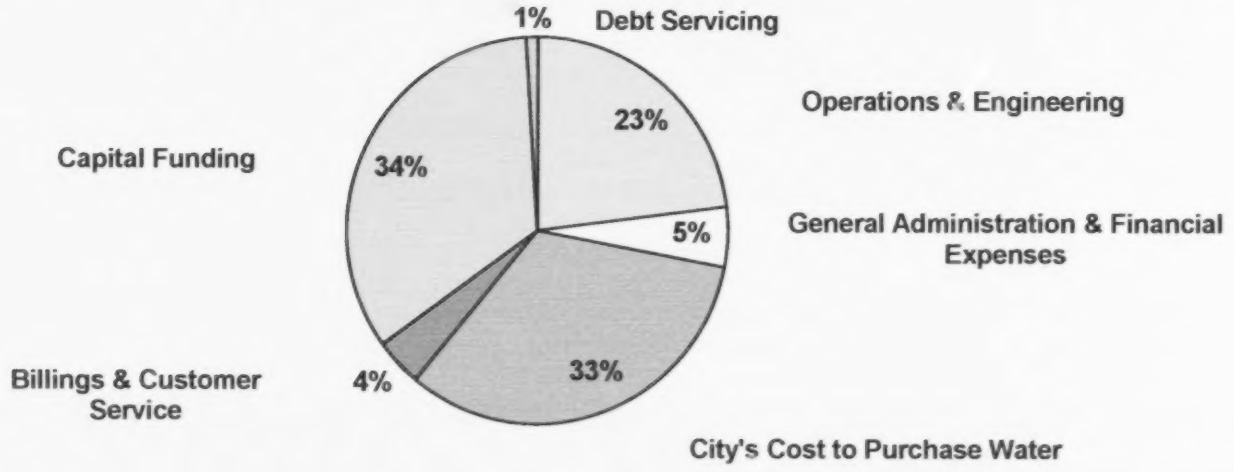
The plan is a commitment to continue renewing infrastructure as it approaches the end of its useful life, prior to failure, thereby minimizing maintenance and repair costs, social disruption and water loss and ensuring inter-generational equity.

A fully developed and implemented financial plan will maintain ***London's Advantage*** over other municipalities providing a high quality, valued service and ***securing tomorrow***, allowing future generations to prosper as we have.

Water

Your Water Dollar

Where Your Water Dollar Goes



Budgeted Residential Cost at 2012 Rates [1]	Forecasted Residential Cost at 2012 Rates [2]	Proposed Increase (8%)	Forecasted Residential Cost at 2013 Rates [3]
$319	$311	$25	$336

(1) The budgeted residential cost in 2012 was based on an average residential consumption of 192.6 m^3.

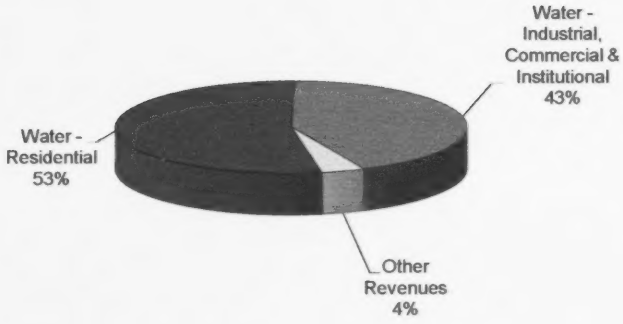
(2) The forecasted residential cost in 2012 has been restated based on a revised consumption estimate of 188.1 m^3.

(3) The forecasted residential cost in 2013 is based on an average residential consumption of 188.1 m^3.

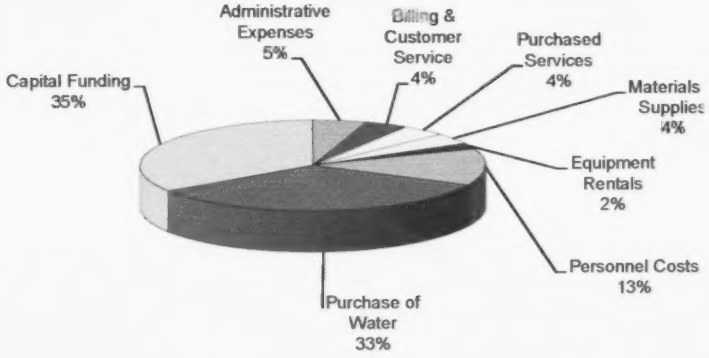
Water
2013 Budget Highlights
($000's)

	($000's)	%
2013 Proposed Budget	$62,564	
2012 Approved Budget	$59,677	
Increase Over 2012 Budget	**$2,887**	**4.8%**
Revenue Adjustments Including Consumption Reduction Estimate		**3.2%**
Total Rate Increase		**8.0%**

Revenue Budget
$62,564



Expenditure Budget
$62,564



Water
2013 Operating Program Budget Summary
($000's)

Program	2011 Actuals	2012 Approved Budget	2013 Proposed Budget	Change from 2012	Prior Year Change
Revenue					
Residential	28,366	31,803	33,302	1,499	4.7%
Commercial, Institutional, Industrial & Multi Family Residential	23,896	25,794	27,020	1,226	4.8%
Other Revenues	2,066	2,080	2,242	162	7.8%
Total Revenues	**54,328**	**59,677**	**62,564**	**2,887**	**4.8 %**
Engineering & Operations					
Engineering	1,200	1,362	1,378	16	1.2%
Water Operations	11,719	12,971	13,298	327	2.5%
Purchase of Water	18,681	19,870	20,552	682	3.4%
General Administration	2,718	3,339	3,169	(170)	-5.1%
Billing & Customer Service	1,650	1,901	2,677	776	40.8%
Total Engineering & Operations	**35,968**	**39,443**	**41,074**	**1,631**	**4.1 %**
Capital Contributions & Financial Expenses					
Capital Funding					
Capital Levy	11,400	12,575	13,601	1,026	8.2%
Reserve Fund Contribution (1)	6,889	7,400	7,606	206	2.8%
Debt Servicing Costs	71	259	283	24	9.3%
Total Capital Contributions & Financial Expenses	**18,360**	**20,234**	**21,490**	**1,256**	**6.2 %**
Total Expenditures	**54,328**	**59,677**	**62,564**	**2,887**	**4.8 %**

(1) Includes contributions to corporate reserves for Local Improvements and Self Insurance.

Water
2013 Object of Expenditure and Source of Revenue Summary
($000's)

Object of Expenditure/Source of Revenue	2011 Actuals	2012 Approved Budget	2013 Proposed Budget	Change from 2012	Prior Year Change
Revenues					
Residential	28,366	31,803	33,302	1,499	4.7%
Commercial, Institutional, Industrial & Multi Family Residential	23,896	25,794	27,020	1,226	4.8%
Other Revenues	2,877	2,080	2,242	162	7.8%
Total Revenues	**55,139**	**59,677**	**62,564**	**2,887**	**4.8%**
Operating Related					
Purchase of Water	18,681	19,870	20,552	682	3.4%
Personnel Costs	7,281	8,145	8,247	102	1.3%
Administrative, Other & Recovered Expenses	3,242	3,449	3,257	(192)	-5.6%
Billing & Customer Service	1,650	1,901	2,677	776	40.8%
Purchased Services	2,717	2,571	2,613	42	1.6%
Materials & Supplies	1,733	2,058	2,289	231	11.2%
Equipment & Rentals	1,458	1,449	1,439	(10)	-0.7%
Total Operating Related	**36,762**	**39,443**	**41,074**	**1,631**	**4.1%**
Financial Expenses					
Capital Levy	11,400	12,575	13,601	1,026	8.2%
Reserve Fund Contribution (1)	6,906	7,400	7,606	206	2.8%
Debt Servicing Costs	71	259	283	24	9.3%
Total Financial Expenses	**18,377**	**20,234**	**21,490**	**1,256**	**6.2 %**
Total Expenditures	**55,139**	**59,677**	**62,564**	**2,887**	**4.8%**

(1) Includes contributions to corporate reserves for Local Improvements and Self Insurance.

Water
Overview of Program Changes - Revenue
($000's)

Explanation of Changes in Revenue	Change (000's)
Although 2013 rates are proposed to increase by 8%, revenues from residential, commercial, institutional, industrial and multi-family residential water users are projected to increase by 4.7% over the 2012 budget due to the continued trend of water conservation and an increase to non-revenue water (ie. fire, flushing, meter inaccuracy, main breaks, and leakage).	2,725
Other miscellaneous revenues account for a small increase primarily driven by the proposed 8% rate increase.	162
Total Revenue Increase of 4.8% - Rate Increase of 8%	**2,887**

Water
Overview of Program Changes - Expenditures
($000's)

Explanation of Changes in Expenditures	Change (000's)
The outside cost of purchasing water from the Elgin Area and Lake Huron Primary Water Supply Systems which are anticipated to increase by 9% and 5% respectively (subject to Joint Board of Management approval).	682
Decrease in general administration, other and recovered expenses primarily driven by a partial transfer of billing and administration costs to Wastewater and Treatment ($250) to continue to move gradually to full sharing of these costs.	(192)
Billing services provided by London Hydro are anticipated to increase.	776
Initiation of operating costs associated with the new Southeast Reservoir and Pumping Station and rising electricity pricing.	231
Increases in personnel and purchased services, partially offset by a decrease in equipment and rentals.	134
Operating Related	**1,631**
Increased contributions to reserve funds to reflect changes to the 20 Year Water System Plan.	206
Increase in capital levy required to fund the increase in life cycle renewal project budget, noting that the life cycle renewal project budget increased $3.7 million.	1,026
Increased debt servicing costs resulting from debt issued for prior years approved capital projects.	24
Capital Related	**1,256**
Total Expenditures Increase of 4.8% - Rate Increase of 8%	**2,887**

Water
Four Year Operating Forecast

Revenue

The projected rate increases of 8% from 2014 - 2015, 7% in 2016 and 6.75% in 2017 have been incorporated into the 20 Year Water System Plan. While the declining water consumption trend helps to postpone future works, it is placing significant pressure on the City's capacity to raise funds to operate, maintain and improve the existing system. The projected rate increases are offset by an anticipated net consumption reduction of 0.75% (assuming a 1% growth factor and an average consumption reduction of 1.75%) until 2021 and an anticipated net consumption reduction of 0% (assuming a 1% growth factor and an average consumption reduction of 1%) thereafter. Deviations from these projections or changes to the economic climate or legislative requirements may result in modifications to the 20 Year Water System Plan to ensure sustainability is achieved in an acceptable timeframe.

Engineering & Operations

The forecast from 2014 to 2017 for all operating budget categories, with the exception of the Purchase of Water, are projected to increase by an anticipated rate of inflation of 3%. Budget drivers impacting the Purchase of Water are net water demand and rate increases imposed by the Regional Water Supply. Net demand for water is projected to decrease by 0.75% annually.

Capital Financing

The forecast from 2014 to 2017 projects the capital levy to be at 75% of the average ten year life cycle renewal cost. Achieving the 75% capital levy is consistent with the Strategic Financial Plan to ensure that life cycle renewal projects are not funded through debt. Contributions to reserve funds will change depending on the timing of capital projects identified in the 20 Year Water System Plan.

Water
Four Year Operating Forecast
($000's)

Program	2013 Proposed Budget	2014 Budget Forecast	Incr. /(Decr.) Over 2013 $	Incr. /(Decr.) Over 2013 %	2015 Budget Forecast	Incr. /(Decr.) Over 2014 $	Incr. /(Decr.) Over 2014 %	2016 Budget Forecast	Incr. /(Decr.) Over 2015 $	Incr. /(Decr.) Over 2015 %	2017 Budget Forecast	Incr. /(Decr.) Over 2016 $	Incr. /(Decr.) Over 2016 %
Water Rate Forecast	8.0%	8.0%			8.0%			7.0%			6.75%		
Revenues													
Residential	33,302	35,716	2,414	7.3%	38,305	2,589	7.3%	40,700	2,395	6.3%	43,142	2,442	6.0%
Commercial, Inst., Ind. & Multi Family Residential	27,020	28,979	1,959	7.3%	31,080	2,101	7.3%	33,024	1,944	6.3%	35,005	1,981	6.0%
Other Revenues	2,242	2,421	179	8.0%	2,615	194	8.0%	2,798	183	7.0%	2,987	189	6.8%
Total Revenues	**62,564**	**67,116**	**4,552**	**7.3%**	**72,000**	**4,884**	**7.3%**	**76,522**	**4,522**	**6.3%**	**81,134**	**4,612**	**6.0%**
Engineering & Operations													
Engineering	1,378	1,419	41	3.0%	1,462	43	3.0%	1,506	44	3.0%	1,551	45	3.0%
Water Operations	13,298	13,697	399	3.0%	14,108	411	3.0%	14,531	423	3.0%	14,967	436	3.0%
Purchase of Water	20,552	21,565	1,013	4.9%	22,628	1,063	4.9%	23,744	1,116	4.9%	24,753	1,009	4.2%
General Administration & Financial Expenses	3,169	3,264	95	3.0%	3,362	98	3.0%	3,463	101	3.0%	3,567	104	3.0%
Billing & Customer Service	2,677	2,757	80	3.0%	2,840	83	3.0%	2,925	85	3.0%	3,013	88	3.0%
Total Engineering & Operations	**41,074**	**42,703**	**1,629**	**4.0%**	**44,400**	**1,697**	**4.0%**	**46,169**	**1,769**	**4.0%**	**47,851**	**1,682**	**3.6%**
Capital Funding													
Capital Levy	13,601	17,753	4,152	30.5%	17,753	0	0.0%	17,753	0	0.0%	17,753	0	0.0%
Reserve Fund Contribution	7,606	6,260	(1,346)	-17.7%	9,347	3,087	49.3%	12,000	2,653	28.4%	14,930	2,930	24.4%
Debt Servicing Costs	283	400	117	41.3%	500	100	25.0%	600	100	20.0%	600	0	0.0%
Total Capital Funding	**21,490**	**24,413**	**2,923**	**13.6%**	**27,600**	**3,187**	**13.1%**	**30,353**	**2,753**	**10.0%**	**33,283**	**2,930**	**9.7%**
Total Expenditures	**62,564**	**67,116**	**4,552**	**7.3%**	**72,000**	**4,884**	**7.3%**	**76,522**	**4,522**	**6.3%**	**81,134**	**4,612**	**6.0%**

Water
Performance Measures and Staffing

	2011	2012	2013	2014	2015	2016	2017
Performance Measures	**Actual**	**Revised**	**Forecast**				
Activity Measures							
Water sold in million cubic meters	43.5	43.5	43.2	42.9	42.6	41.9	41.6
Lead services replaced	296	450	525	530	515	500	500
Water meters installed	11,901	12,000	14,000	15,000	15,000	15,000	15,000
km of new watermain (km)	13.4	12.0	12.0	12.0	12.0	12.0	12.0
km of watermain replaced (km)	6.1	7.0	11.0	11.0	10.5	13.0	12.0
Total km of watermain rehabilitated	5.0	5.7	6.3	7.0	7.7	8.4	9.0
Total km of watermain	1,561	1,572	1,582	1,592	1,603	1,615	1,626
% of existing mains renewed	0.71%	0.81%	1.09%	1.13%	1.14%	1.33%	1.29%
Efficiency Measures							
Average cost for residential customer [1]	$285	$311	$336	$347	$371	$392	$414
Residential consumption (1000's litres per year)	185.9	188.1	188.1	179.4	177.5	175.5	173.5
Non revenue water (% of pumped) [2]	10.8	10.5	10.0	9.9	9.6	9.3	9.0
Effectiveness / Quality / Satisfaction Measures							
# of boil water advisories	0	0	0	0	0	0	0
# of watermain breaks per 100 km [3]	7.6	7.8	7.4	7.0	7.0	7.0	7.0
Ministry of Environment Report Card score	94.39%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Water quality complaints [4]	247	290	305	310	310	305	300
Staffing							
Full-time equivalents #	93.6	96.4	94.5	94.5	94.5	94.5	94.5
Increase / (Decrease) over previous year			(1.9)	0.0	0.0	0.0	0.0
Full-time employees #	81	81	81	81	81	81	81
Increase / (Decrease) over previous year			0	0	0	0	0

Notes:

(1) The average cost per household per year in 2012 and 2013 is based on residential consumption of 188.1 m^3.

(2) Dependent on non-revenue usage (fire, flushing, meter inaccuracy), main breaks, and leakage.

(3) Dependent on renewal programs and weather (temperature).

(4) Drop in complaints coincides with pH adjustment (2011).

Water

2013 Capital Budget

With Forecasts

Water
Capital Program
($000's)

Service Grouping:	Water	2013 Proposed Budget -	$26,728
Committee:	Civic Works Committee	2014 - 2017 Forecast -	$128,982

Objective: The Water Capital program includes transmission and distribution piping, pumping stations, and reservoir storage to meet the growth demands of the city as well as repair and rehabilitation to extend the life cycle of existing infrastructure. The elements in this program are generally outlined in such engineering studies and documents as the Water Master Plan or the Water Distribution System Needs Analysis, or resulting from ongoing modeling and analysis of the existing system.

Page Number	Project Number	Project	Life Cycle Renewal	Growth	Service Improvement
33	EW1612-13	Meters & Devices	400		
47	EW1627-13	Meter Replacement Program			1,800
33	EW3105	Emergency Materials Storage Facility	150		
41	EW3312	Water Distribution System Master Plan		155	
33	EW3409-13	Pumping Stations Major Repairs	150		
34	EW3526	Arva Pumping Station Upgrades	50		
47	EW3527	Asset Maintenance Management System			750
47	EW3532	Acoustic Fibre Optic Conversion to SCADA			100
48	EW3536	Metering and Billing Study			100
34	EW3538	CPP AFO Monitoring Program	200		
35	EW3540	Elgin Middlesex Pumping Station - Capital Maintenance	50		
48	EW3543	Southdale West Main Replacement			1,200
35	EW3550	Royal York Watermain Replacement	700		
41	EW3551	Hyde Park - Sarnia Road High Level Watermain Phase II		166	
36	EW3563-13	Main Cleaning & Relining	4,301		

Water
Capital Program
($000's)

Service Grouping:	Water	2013 Proposed Budget -	$26,728
Committee:	Civic Works Committee	2014 - 2017 Forecast -	$128,982

Page Number	Project Number	Project	Life Cycle Renewal	Growth	Service Improvement
42	EW3595	Hyde Park Road Feeder Watermain		227	
37	EW3656-2	Wellington Road Watermain Replacement - Phase II	882		
44	EW3666	Wonderland Road North Feeder Watermain		400	
45	EW3685	Oxford Street West Feeder Watermain		2,126	
39	EW3717-13	Inspect Trunk Concrete Pressure	620		
49	EW3743	Watermain Extensions			840
39	EW3754-13	Abandoned Wells Decommissioning	331		
40	EW3765-13	Main Replacement - Engineering	6,319		
46	EW3772-13	Water Efficiency Program		350	
40	EW3787-13	Main Replacements with Major Road Works	2,323		
49	EW3817-13	Watermain Oversizing Costs			50
40	EW3833-13	Main Replacement Maintenance	908		
40	EW3842-13	Replace Lead Water Services	750		
50	EW3851-13	New Meters for Development			330
		Total by Classification	**$18,134**	**$3,424**	**$5,170**
		Total 2013 Water Capital		**$26,728**	

Water
Capital Program
($000's)

Service Grouping:	Water	2013 Proposed Budget -	$26,728
Committee:	Civic Works Committee	2014 - 2017 Forecast -	$128,982

Page Number	Project Number	Project	Life Cycle Renewal	Growth	Service Improvement
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39	EW3717-13	Inspect Trunk Concrete Pressure	620		
49	EW3743	Watermain Extensions			840
39	EW3754-13	Abandoned Wells Decommissioning	331		
40	EW3765-13	Main Replacement - Engineering	6,319		
46	EW3772-13	Water Efficiency Program		350	
40	EW3787-13	Main Replacements with Major Road Works	2,323		
49	EW3817-13	Watermain Oversizing Costs			50
40	EW3833-13	Main Replacement Maintenance	908		
40	EW3842-13	Replace Lead Water Services	750		
50	EW3851-13	New Meters for Development			330
		Total by Classification	**$18,134**	**$3,424**	**$5,170**
		Total 2013 Water Capital		**$26,728**	

Water
Capital Expenditure Summary by Classification
($000's)

Water	Prior Years	2012 [1]	2013	2014	2015	2016	2017	2018 to 2022	Total
Life Cycle Renewal	22,304	14,389	18,134	22,725	21,578	24,145	23,206	126,918	273,399
Growth	15,851	1,838	3,424	5,393	8,502	1,424	11,230	16,746	64,408
Service Improvement	1,903	1,331	5,170	2,310	3,020	2,180	3,269	16,785	35,968
Total Water	**40,058**	**17,558**	**26,728**	**30,428**	**33,100**	**27,749**	**37,705**	**160,449**	**373,775**

(1) The Water Capital Budget decreased from $21.5 million to $17.6 million mainly due to deferring the budget for White Oaks Industrial Subdivision Local Improvement project to years 2020/2021 (-$1.7 million). The annual watermain replacement program was also reduced by $2.2 million. This amount was identified during capital project monitoring, noting that all scheduled projects will be completed. A portion of this reduction (-$0.8 million) addressed Council's resolution to accommodate the 2011 operating deficit.

Water	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
Tangible Capital Asset	39,049	16,761	24,842	29,428	32,100	26,649	36,736	156,809	362,374
Non-Tangible Capital Asset [2]	1,009	797	1,886	1,000	1,000	1,100	969	3,640	11,401
Total Water	**40,058**	**17,558**	**26,728**	**30,428**	**33,100**	**27,749**	**37,705**	**160,449**	**373,775**

(2) A separate non-tangible capital asset (Non-TCA) section has been added because Non-TCA projects could be classified as life cycle, growth, or service improvement. Non-TCA are expenditures that will not result in the creation of a tangible asset (having physical substance). It should be noted that the Non-TCA summary only includes projects that are 100% Non-TCA.

Water
Capital Source of Financing Summary
($000's)

Water	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Totals
RATE SUPPORTED									
Capital Levy	11,136	12,575	13,601	17,753	17,753	17,753	17,753	88,765	197,089
Capital Water Reserve Fund	11,184	4,237	9,707	7,705	6,170	8,456	8,651	56,802	112,912
Industrial Oversizing Water Reserve Fund	5,552	204	50	651	5,170	86	608	1,861	14,182
Debenture	3,248			800					4,048
Total Rate Supported	**31,120**	**17,016**	**23,358**	**26,909**	**29,093**	**26,295**	**27,012**	**147,428**	**328,231**
NON-RATE SUPPORTED									
Debenture - Non Rate Supported (City Services - Water Reserve Fund)							8,493		8,493
City Services Water Reserve Fund (1)	7,507	526	1,956	3,076	2,934	966	1,127	8,679	26,771
City Services Corporate Services Reserve Fund (1)	225	24	156	24	24	69	24	298	844
Federal Gas Tax Grant	317	629	628	419	419	419	419	2,095	5,345
Other Contributions (Prov Grants, Cash Pmts) (2)	889	(637)	630		630		630	1,949	4,091
Total Non-Rate Supported	**8,938**	**542**	**3,370**	**3,519**	**4,007**	**1,454**	**10,693**	**13,021**	**45,544**
Total Sources of Financing	**40,058**	**17,558**	**26,728**	**30,428**	**33,100**	**27,749**	**37,705**	**160,449**	**373,775**

(1) Growth splits for 2013 and beyond are consistent with the 2009 Development Charge Study.

(2) Budget adjustment made to prior year approved budget for Local Improvement required to be reflected in 2012 for reconciliation purposes.

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW1612-13 Meters & Devices		400	400	400	400	400	400	400	2,800
Purchase and installation of new water meters, valves and related equipment for life cycle replacement of residential, commercial, industrial and institutional customers.									
2013 Financing: Capital Levy									
EW2310 Western Road Watermain Replacement								1,300	1,300
To replace the watermain on Western Road from Platt's Lane to Oxford Street.									
EW3105 Emergency Materials Storage Facility	220		150						370
Construction of a cover-all type structure at A.J. Tyler Operations Centre to provide protection of materials and supplies for emergency repairs.									
2013 Financing: Capital Levy									
EW3409-13 Pumping Stations Major Repairs		150	150	150	150	150	150	750	1,650
Ongoing annual maintenance and upgrades to the water pumping stations and bulk water stations.									
2013 Financing: Capital Levy									
EW3525 Cathodic Protection Program	275			50			50	50	425
To implement, test and monitor Cathodic Protection on steel, concrete and ductile iron watermains to prolong the lifespan of existing watermains.									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3526 Arva Pumping Station Upgrades	3,038	50	50	50	50	50	50	250	3,588
To undertake major pump and valve maintenance/ replacement. Equipment is 40 years old and requires ongoing repairs and/or is no longer performing effectively or efficiently.									
2013 Financing: Capital Levy									
*** EW3528 Drinking Water Quality Management Standard**	160	10		10	10	50	10	130	380
Through the "*Safe Drinking Water Act*" and the "*Drinking Water Quality Management Standard*", legislation requires the City, as the operating authority, to be accredited. The requirements are fulfilled by establishing and maintaining a quality management system, including internal and external auditing.									
*** EW3533-13 Lead Mitigation Strategy**		106		109	109	109	109	545	1,087
An annual program to support the replacement of lead water services through increased public awareness of the Water By-law W-3. Recommendations from the Walkerton Inquiry states "lead service lines should be located and replaced over time with safer materials".									
*** EW3538 CPP AFO Monitoring Program**			200	200	200	200	200	1,000	2,000
Annual monitoring costs associated with the installation of an acoustic fibre optic cable inside a watermain used to alert City staff of potential failures of a concrete pressure pipe.									
2013 Financing: Capital Levy									

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3540 Elgin Middlesex Pumping Station - Capital Maintenance	1,400	50	50	50	50	50	50	250	1,950
Project required for the ongoing annual maintenance of London's components in the Elgin-Middlesex (London) Pumping Station at St. Thomas. Replacement of pumps 4 & 5 and associated mechanical/electrical equipment in 2012 and 2013, and in conjunction with commissioning of the Southeast Reservoir and Pumping Station.									
2013 Financing: Capital Levy									
EW3541 Elgin Middlesex Pumping Station - SCADA Upgrade	300	300						300	900
To repair and upgrade equipment controllers and computerized SCADA system at Elgin Middlesex Pumping Station.									
EW3550 Royal York Watermain Replacement		80	700						780
To replace the watermain on Royal York Road from Hyde Park Road to Oxford Street. Coordinated with water projects EW3595 and EW3685, sewer project ES2493 and road reconstruction TS1477 and TS1493.									
2013 Financing: Water Reserve Fund									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3563-13 Main Cleaning & Relining		3,676	4,301	4,801	5,301	5,801	6,301	39,005	69,186
An annual program for the cleaning and relining of existing watermains on streets throughout the City of London in order to maintain flow capacity and provide safe, cost effective water.									
2013 Financing:									
Capital Levy	$1,350								
Water Reserve Fund	2,323								
Federal Gas Tax Grant	628								
Total Financing	$4,301								
EW3572 Commissioners Road Watermain Replacement				50	1,000				1,050
To replace the watermain on Commissioners Road from Wharncliffe Road to Wonderland Road - Phase II. New watermain required to replace existing system which has surpassed its useful life.									
EW3580 Huron Street River Crossing Remedial Work	570			2,678				500	3,748
To replace the existing 600mm trunk watermain under Thames River behind Huron Street and Philip Aziz Avenue.									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3617 Springbank Reservoir No. 2 Replacement	450	503					485	5,000	6,438
Springbank Reservoir Cell No. 2 reconstruction is the second largest project on Water's Long Term Plan. An assessment of storage needs and changes to the operational procedures have increased the anticipated service life. Deferral of the project by 10 years is expected and results in significant debt deferral for the water utility. Interim inspection and repair costs can be accommodated within the current maintenance funding of the reservoir. Further studies will be undertaken to assess the timing and location for additional reservoir capacity following construction of the Southeast Reservoir.									
EW3624 Burbrook Watermain Upgrade Phase II				1,000	650	500	1,550	3,100	6,800
Replacement of watermain and water service in the existing Burbrook Trunk Storm Sewer and Burbrook Lateral area. New watermain required to replace undersized existing system which has surpassed its useful life. Coordinated with sewer project ES3054 and ES3058.									
EW3627 SCADA Equipment Replacement	75	90			105			255	525
The planned replacement of existing SCADA equipment.									
EW3656-2 Wellington Road Watermain Replacement - Phase II			882	1,100		1,000			2,982
To replace the watermain on Wellington Road from the Thames River to Baseline Road. New watermain required to replace existing system which has surpassed its useful life. Coordinated with sewer project ES2464 - Separation and CSO Program.									
2013 Financing: Water Reserve Fund									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3674 Wharncliffe Road Watermain Replacement To replace watermain on Wharncliffe Road between Becher Street and Springbank Drive coordinated with transportation project TS1355.								563	563
EW3702 Fanshawe Park Road Watermain Replacement To replace the watermain on Fanshawe Park Road from Adelaide Street to Highbury Avenue. Coordinated with transportation project TS1475 and sewer project ES4424.					184	1,658			1,842
EW3707 Southdale Road Watermain Replacement The replacement and rehabilitation of existing watermains on Southdale Road between Wellington Road and Pond Mills in conjunction with transportation road project TS1487 Road Widening and sewer project LI2040.								1,909	1,909
EW3708 Trunk Watermain Valve Chambers To install new valves on existing trunk watermains.	420	400				400		1,300	2,520
EW3710 Downtown Watermain Replacement To replace deficient watermains and services. Useful life of watermain and water services surpassed or undersized. Coordinated with roads project TS1306 and Sewer Replacement Program.	1,605			105	1,500		105	3,105	6,420

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3713 Sarnia Road Watermain Replacement								1,366	1,366
To replace the watermain on Sarnia Road from Wonderland Road to Sleightholme Road. New watermain required to replace existing system which has surpassed it's useful life. Construction scheduled in 2021 deferred from 2012. Coordinated with transportation project TS1484 which has been deferred to beyond 2021 under Development Charges - related deferrals approved by Council & London Development Institute (LDI) October 2010.									
EW3717-13 Inspect Trunk Concrete Pressure		720	620	620	620	620	620	3,100	6,920
Project required for structural analysis of existing 900mm to 1,350mm concrete watermains.									
2013 Financing: Capital Levy									
*** EW3754-13 Abandoned Wells Decommissioning**		331	331	331	331	331	300		1,955
To decommission former London Public Utilities Commission abandoned wells. Ontario Regulation 903.Section 21 (3) requires that the wells be properly decommissioned.									
2013 Financing: Capital Levy									

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Life Cycle Renewal**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3765-13 Main Replacement - Engineering An annual program for replacement of watermain and water services as outlined in the Condition Assessment Program Needs Study. New watermain and water services required to replace existing systems which have surpassed useful life. New water supply required to provide fire flows to the community. Coordinated with sewer project ES2414 - Sewer Replacement Program. **2013 Financing:** Capital Levy		4,685	6,319	6,834	6,834	8,536	8,536	41,290	83,034
EW3787-13 Main Replacements with Major Road Works Replacement of watermains that have reached their useful lifespan. Coordinated with major road works. **2013 Financing:** Capital Levy		1,405	2,323	2,529	2,426	2,632	2,632	13,160	27,107
EW3833-13 Main Replacement Maintenance Watermain replacements in conjunction with sewer and road replacements. **2013 Financing:** Capital Levy		882	908	908	908	908	908	4,540	9,962
EW3842-13 Replace Lead Water Services Fifteen year program to replace lead water services. Recommendation from the Walkerton Inquiry Report states "lead service lines should be located and replaced over time with safer materials". This work has been incorporated into our Lead Service Replacement Program. **2013 Financing:** Capital Levy		722	750	750	750	750	750	3,750	8,222
Balance of approved projects for prior years comparison	13,791	(171)							13,620
Total Life Cycle Renewal	22,304	14,389	18,134	22,725	21,578	24,145	23,206	126,918	273,399

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
*** EW1503 Development Charges Background Study**	144					60		60	264
Background study to determine future watermain needs to service growth, timing and growth splits. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (75% DC Rate Supported).									
*** EW3312 Water Distribution System Master Plan**	155		155					155	465
To update the City's Water Distribution System Master Plan to support the calculation of Development Charges. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (83.5% DC Rate Supported).									
2013 Financing:									
Water Reserve Fund	22								
Development Charges	133								
Total Financing	$155								
EW3551 Hyde Park - Sarnia Road High Level Watermain - Phase II		52	166	1,959				680	2,857
Construction of 400mm, 450mm and 600mm watermains in the high level area of northwest London. Watermain installation required to service customers in the Hyde Park High Level area. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (100% DC Rate Supported).									
2013 Financing: Development Charges									

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3590 Uplands Pumping Station Upgrade				28	252				280
To upgrade the Uplands Pumping Station to serve future growth in north London. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (100% DC Rate Supported).									
EW3591 Hyde Park Pumping Station Upgrade				55	495				550
To upgrade the Hyde Park Pumping Station to serve future growth in northwest London. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (100% DC Rate Supported).									
EW3595 Hyde Park Road Feeder Watermain			227	2,045					2,272
To construct a 750mm watermain on Hyde Park Road from Sarnia Road to Oxford Street. Watermain installation required for water supply to west London. Coordinated with sewer project ES2493 and Transportation Project TS1477. Pumping station to serve future growth in north London. Growth splits are consistent with the 2009 Development Charge Study. 35% Growth Related (33.8% DC Rate Supported).									

2013 Financing:

Water Reserve Fund	$151
Development Charges	76
Total Financing	$227

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3606 Southeast Pressure Zone Feeder Watermain To construct feeder watermains on Bradley Avenue from Jackson Road to Airport Road to service Airport Road Industrial Subdivision Development Phase II in 2009 and southeast London from the Southeast Pumping Station and Reservoir. Coordinated with industrial land project ID1168 and sewer oversizing project ID2058. Incremental growth in the water distribution system will ultimately lead to increased operating costs. Growth splits are consistent with the 2009 Development Charge Study. 99.2% Growth Related (15.3% DC Rate Supported).	6,326			325	2,622				9,273
EW3611 Highbury Avenue South Trunk Watermain Construction of a 900mm diameter trunk watermain on Highbury Avenue from the Southeast Pumping Station to Dingman Drive to facilitate industrial growth in southeast London. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (36.9% DC Rate Supported).				531	4,783				5,314
EW3652 Wickerson High Level Watermain Construction of 400mm and 450mm watermains in the high level area of southwest London. Watermain installation required to service future customers in the River Bend and Wickerson area. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (99.2% DC Rate Supported).	4,238					117	1,055		5,410

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3654 Arva Pumping Station Upgrade								2,600	2,600
Upgrade the Arva Pumping Station including pump replacements that are required as water demand increases. Growth splits are consistent with the 2009 Development Charge Study. 50% Growth Related (47.2% DC Rate Supported).									
EW3666 Wonderland Road North Feeder Watermain	2,259		400					2,608	5,267
To construct a 600mm watermain on Wonderland Road North from Gainsborough Road to Sunningdale Road. Project required to upgrade north London area water supply. Coordinated with transportation project TS1156 and TS1354 - Road Widening. Growth splits are consistent with the 2009 Development Charge Study. 46% Growth Related (44.1% DC Rate Supported).									
2013 Financing:									
Water Reserve Fund	$227								
Development Charges	173								
Total Financing	$400								

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3685 Oxford Street West Feeder Watermain		236	2,126						2,362
To construct a 600mm watermain on Oxford Street West from Hyde Park Road to Sanatorium Road. Watermain installation required to supply water to new developments in west London. Coordinated with transportation project TS1493 and sanitary sewer project ES2493. Growth splits are consistent with the 2009 Development Charge Study. 75% Growth Related (72.4% DC Rate Supported).									
2013 Financing:									
Water Reserve Fund	$586								
Development Charges	1,540								
Total Financing	$2,126								
EW3692 Medway - Wonderland Road Trunk Watermains				100		897	8,975		9,972
To construct 1,500mm watermains from the Arva Pumping Station to the north London area. Trunk watermain required to supply future customers in north and west London. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (94.6% DC Rate Supported).									
EW3709 Crumlin & River Feeder Watermain Phase III								2,670	2,670
To construct 450mm and 600mm watermains in southeast London to service industrial land in the River Road industrial area. Growth splits are consistent with the 2009 Development Charge Study. 77% Growth Related (33.1% DC Rate Supported).									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Growth**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3711 Gainsborough Road Feeder Watermain To construct a new 600mm watermain on Gainsborough Road between Wonderland Road North and Hyde Park Road for low level grid. Growth splits are consistent with the 2009 Development Charge Study. 100% Growth Related (100% DC Rate Supported).								4,630	4,630
EW3712 White Oak Road Watermain Upsizing To construct a new 450mm watermain on White Oak Road between Dingman Drive and Exeter Road to service new development within the 20 year urban growth area. Growth splits are consistent with the 2009 Development Charge Study. 35% Growth Related (8.4% DC Rate Supported).	642						850	1,593	3,085
*** EW3772-13 Water Efficiency Program** To undertake a water efficiency strategy to promote awareness of water issues. Water efficiency/conservation program will be a requirement of the new Municipal Water Licensing Plan. 8% Growth Related (6.8% DC Rate Supported).		350	350	350	350	350	350	1,750	3,850
2013 Financing:									
Water Reserve Fund $326									
Development Charges 24									
Total Financing $350									
Balance of approved projects for prior years comparison	2,087	1,200							3,287
Total Growth	**15,851**	**1,838**	**3,424**	**5,393**	**8,502**	**1,424**	**11,230**	**16,746**	**64,408**

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Service Improvement**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW1627-13 Meter Replacement Program		1,800	1,800	1,800	1,800	1,800	1,800	9,000	19,800
Residential water meter replacement strategy to eliminate backlog of water meters that have surpassed their effective life.									
2013 Financing: Water Reserve Fund									
EW2404 New Vehicles & Equipment				130			130	130	390
Purchase new vehicles to provide for planned growth of the water distribution system. Includes purchase of portable asphalt recycling equipment and ancillary equipment to facilitate better repairs to asphalt surfaces by watermain failures.									
*** EW3527 Asset Maintenance Management System**	550		750						1,300
To develop and implement an electronic inventory and maintenance program for water and sewer infrastructure. Project is a requirement of new legislation passed by MOE "Sustainable Water and Sewage Systems Act."									
2013 Financing: Water Reserve Fund									
EW3532 Acoustic Fibre Optic Conversion to SCADA			100						100
Addition of acoustic fibre optic cable to SCADA system to allow for back-up and redundancy of communications between Springbank Pumping Station and Arva Pumping Station.									
2013 Financing: Water Reserve Fund									

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Service Improvement**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
*** EW3536 Metering and Billing Study**			100						100
Study to develop the new billing and customer service procedures associated with changes to London Hydro's billing system required as a result of Ontario Energy Board regulations.									
2013 Financing: Water Reserve Fund									
EW3543 Southdale West Main Replacement		105	1,200						1,305
To replace/upsize the distribution watermain on Southdale Road between Wonderland Road and Wharncliffe Road. New watermain required to replace existing system which has surpassed its useful life and is undersized for the projected flow requirement.									
2013 Financing: Water Reserve Fund									
EW3657 Westmount Area High Level System Distribution Improvements								2,145	2,145
To replace and upsize the existing 200mm and 300mm watermains on Viscount Road (Wonderland Road to Belmont Drive) with 450mm and 600mm watermains. Watermains undersized for peak distribution needs. Identified in the High Level Water Distribution System Master Plan.									

Note: * represents projects that are classified as non-tangible capital assets. These expenditures will not result in the creation of a tangible asset (having physical substance).

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water — **Category: Service Improvement**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3658 Westmount Pumping Station to Viscount Road High Level Water Reinforcement							119	1,070	1,189
To replace and upsize the existing 300mm and 400mm watermains on Wonderland Road (Westmount Pumping Station to Viscount Road) with 600mm watermain as identified in the High Level Water Distribution System Master Plan. Watermains undersized for peak distribution.									
EW3743 Watermain Extensions			840		840		840	840	3,360
Cost sharing project for the watermain extensions to unserviced parts of the urban growth area and beyond. City's share is approximately 25% of the total cost.									
2013 Financing:									
Water Reserve Fund $210									
Local Improvements 630									
Total Financing $840									
EW3806 Local Improvement - White Oak Industrial Subdivision - Water Cost Sharing Phase II								1,700	1,700
Cost sharing project for the installation of watermains in this existing industrial area. Coordinated with sewer project ES3111. City's share is approximately 25% of the total cost.									
EW3817-13 Watermain Oversizing Costs		50	50	50	50	50	50	250	550
To accommodate oversizing costs to upsize feeder and distribution watermains.									
2013 Financing: Industrial Oversizing Reserve Fund									

Water
Capital Expenditure Detail
($000's)

Service Grouping: Water **Category: Service Improvement**

	Prior Years	2012	2013	2014	2015	2016	2017	2018 to 2022	Total
EW3851-13 New Meters for Development		330	330	330	330	330	330	1,650	3,630
Purchase and installation of new water meters, valves and related equipment. Includes cost of meters for all new development in residential, industrial and institution sectors.									
2013 Financing: Water Reserve Fund									
Balance of approved projects for prior years comparison	1,353	(954)							399
Total Service Improvement	1,903	1,331	5,170	2,310	3,020	2,180	3,269	16,785	35,968
Total Water	40,058	17,558	26,728	30,428	33,100	27,749	37,705	160,449	373,775

Water

2013 Reserve Funds and Reserves

Water
Reserve Funds and Reserves
($000's)

New Capital Water Reserve Fund	Actual 2011	Projected 2012	Proposed 2013	Forecast 2014	2015	2016	2017	2018-2022
Opening Balance	$20,909	$19,893	$8,524	$6,356	$4,069	$5,375	$7,513	$11,327
Contributions from Operating Water Rates	6,701	7,195	7,392	5,315	7,383	10,467	12,279	56,743
Additional Contribution (surplus and account closing)		507						
Interest earned	523	277	147	103	93	127	186	1,371
	$28,133	**$27,872**	**$16,063**	**$11,774**	**$11,545**	**$15,969**	**$19,978**	**$69,441**
Operating Deficit	811							
Drawdowns - Current Year	3,109	4,237	9,707	7,705	6,170	8,456	8,651	56,802
Drawdowns - Prior Year	4,320	15,111						
Total Drawdowns (1)	**$8,240**	**$19,348**	**$9,707**	**$7,705**	**$6,170**	**$8,456**	**$8,651**	**$56,802**
Ending Balance (2)	**$19,893**	**$8,524**	**$6,356**	**$4,069**	**$5,375**	**$7,513**	**$11,327**	**$12,639**

Notes:

(1) Drawdowns are based on full capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.

(2) The reserve fund balance may increase/decrease subject to the 2012 year end operating position of the water operating budget.

Industrial Oversizing Water Reserve Fund	Actual 2011	Projected 2012	Proposed 2013	Forecast 2014	2015	2016	2017	2018-2022
Opening Balance	$6,381	$6,384	$4,207	$4,241	$4,678	$1,065	$1,504	$1,425
Contributions from Operating Water Rates				1,000	1,500	500	500	2,500
Interest earned	188	105	84	88	57	25	29	138
	$6,569	**$6,489**	**$4,291**	**$5,329**	**$6,235**	**$1,590**	**$2,033**	**$4,063**
Drawdowns - Current Year		204	50	651	5,170	86	608	1,861
Drawdowns - Prior Year	185	2,078						
Total Drawdowns (1)	**$185**	**$2,282**	**$50**	**$651**	**$5,170**	**$86**	**$608**	**$1,861**
Ending Balance	**$6,384**	**$4,207**	**$4,241**	**$4,678**	**$1,065**	**$1,504**	**$1,425**	**$2,202**

Notes:

(1) Drawdowns are based on full capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.

(2) This reserve fund was established to provide funding for the servicing costs in Industrial Developments and oversizing in growth projects.

Water
Reserve Funds and Reserves
($000's)

City Services - Water Levies Reserve Fund	Actual 2011	Projected 2012	Proposed 2013	Forecast 2014	2015	2016	2017	2018-2022
Opening Balance	$10,318	$9,354	$6,730	$6,390	$4,973	$3,654	$4,321	$4,942
Levies	1,262	1,485	1,486	1,546	1,530	1,554	1,656	8,204
Interest earned	139	159	130	113	85	79	92	599
	$11,719	**$10,998**	**$8,346**	**$8,049**	**$6,588**	**$5,287**	**$6,069**	**$13,745**
Refunds	93	1						
Forecasted Future Debt								3,219
Drawdowns - Current Year		526	1,956	3,076	2,934	966	1,127	8,679
Drawdowns - Prior Year	2,272	3,741						
Total Drawdowns (1)	**$2,365**	**$4,268**	**$1,956**	**$3,076**	**$2,934**	**$966**	**$1,127**	**$11,898**
Ending Balance	**$9,354**	**$6,730**	**$6,390**	**$4,973**	**$3,654**	**$4,321**	**$4,942**	**$1,847**

Note:

(1) Drawdowns are based on full capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.

Lead Service Replacement Program Reserve Fund	Actual 2011	Projected 2012	Proposed 2013	Forecast 2014	2015	2016	2017	2018-2022
Opening Balance	$496	$494	$113	$124	$136	$148	$160	$172
Contributions from Operating Water Rates								
Repayment of Lead Replacement Program	5	9	9	9	9	9	9	21
Interest earned	7	10	2	3	3	3	3	20
	$508	**$513**	**$124**	**$136**	**$148**	**$160**	**$172**	**$213**
Tsf to New Capital Water Reserve Fund		$400						
Loans - Lead Replacement Program	14							
Total Loans	**$14**	**$400**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Ending Balance	**$494**	**$113**	**$124**	**$136**	**$148**	**$160**	**$172**	**$213**

Note:

(1) The purpose of this reserve is to provide the funding mechanism for the Lead Service Extension Replacement Loan Program. Program is designed to assist with the private portion of lead service replacement. Repayment will be made over 10 years. The funding requirement is dependant on the number of households who take advantage of this pilot program. Any balance remaining in this reserve fund at the end of the Lead Service Replacement Loan Program will be returned to the New Capital Water Reserve Fund.

Water
Reserve Funds and Reserves
($000's)

Efficiency, Effectiveness and Economy Water Reserve (1)	Actual 2011	Projected 2012	Proposed 2013	Forecast 2014	2015	2016	2017	2018-2022
Opening Balance	$208	$225	$388	$388	$388	$388	$388	$388
Contributions	17	163						
	$225	$388	$388	$388	$388	$388	$388	$388
Drawdowns								
Ending Balance	**$225**	**$388**	**$388**	**$388**	**$388**	**$388**	**$388**	**$388**

Note:

(1) Beginning in 2004, all positions with some exceptions, are subject to 90 days savings corporately. The savings from these positions are contributed to Efficiency, Effectiveness and Economy reserves to be used as a one-time funding source for initiatives recommended by the Senior Leadership Team.

Water

2013 Debt Summary

Water
Debt Summary - Rate Supported
($ millions)

The Water capital budget forecast for the 2013 - 2022 capital plan includes rate supported debt financing of $0.8 million as outlined in the table below.

Rate Supported - Projected Debt Financing	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Capital Projects Funded by Rate - Supported Debentures[1]	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(1) Debt servicing cost will be covered by operating revenue generated by water rates.

As at June 30, 2012, the authorized but unissued debt was $2.2 million. The outstanding debt level projected for the end of 2012 is $1.9 million. For 2014 new debt has been added for the Hyde Park Road Feeder Watermain growth project. The long term financial goal is to continue to fund water system capital works using pay-as-you-go sources as the primary source of funding. By 2016 the annual debt servicing costs will be approximately $0.6 million as outlined in the table below.

Annual Debt Servicing Costs (excluding Joint Boards)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Rate Supported Principal and Interest Payments	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.4

The Water budget carries debt associated with the City's share of debt issued by the Joint Boards (debt issued for capital works necessary to bring potable water from Lake Huron and Lake Erie to the City system). This will be approximately $18.4 million at the end of 2012. Debt payments tied to the City's share of the Joint Board debt are made indirectly as the part of the purchase of water rate charged to the City by the Joint Boards and is estimated to be approximately $1.4 million in 2013.

Water
Debt Summary - Non Rate Supported
($ millions)

The Water capital budget forecast includes non rate supported (DC) debt financing of $8.5 million as part of the 2013 - 2022 capital plan as highlighted below.

Projected Debt Financing (Non Rate Supported)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Capital Projects Funded by Non Rate Supported Debentures	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0

At June 30, 2012, there is no authorized but unissued debt and no debt outstanding at the end of 2012.

Non rate supported debt in the Water budget is funded through Development Charges in accordance with the 2009 DC Background Study rather than water rates. The funding of this debt by the applicable reserve fund is identified in the reserve fund section of the 2013 Water budget.

Annual Debt Servicing Costs funded through DC's	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Non Rate Supported (DC) Principal and Interest Payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1

The debt projections above are based on a modest pace of spending against approved capital project budgets and the proposed capital plan, consistent with recent experience. If the pace of spending increases, debt will be issued sooner, and the total debt outstanding along with the annual debt servicing costs could exceed current projections.

Water

2013 Schedule of Rates and Charges

Water
2013 Schedule of Rates and Charges

Effective Dates

Monthly Rates and Charges
Comes into effect on January 1, 2013.

Equipment Rentals
Comes into effect on January 1, 2013.

Miscellaneous Rates and Charges
Comes into effect on January 1, 2013.

Monthly Rates and Charges

	2012 Approved Rates	2013 Proposed Rates
Residential		
First 17 m^3	$1.61493/$m^3$	$1.74412/$m^3$
Next 40 m^3	$1.69755/$m^3$	$1.83335/$m^3$
All additional m^3	$1.77891/$m^3$	$1.92122/$m^3$
Minimum monthly charge	$5.00	$5.40
Commercial, Institutional, Industrial & Multi Family Residential		
First 3 m^3	$6.18375/$m^3$	$6.67845/$m^3$
Next 708 m^3	$1.05880/$m^3$	$1.14350/$m^3$
All additional m^3	$0.87444/$m^3$	$0.94440/$m^3$
Minimum monthly charge	$5.00	$5.40

Water
2013 Schedule of Rates and Charges (cont'd)

	2012 Approved Rates	2013 Proposed Rates
Water Meters		
Meter Size	Monthly Charge	Monthly Charge
16 mm	$0.64	$0.69
19 mm	$0.70	$0.76
25 mm	$5.57	$6.02
40 mm	$10.88	$11.75
50 mm	$14.58	$15.75
76 mm	$36.36	$39.27
100 mm	$53.55	$57.83
150 mm	$90.41	$97.64
200 mm	$139.53	$150.69
250 mm (New for 2013)		$190.00
Miscellaneous Rates and Charges		
Non-payment of account		
Late payment charge	Monthly Interest Compounded	Monthly Interest Compounded
NSF cheques	$13.79 + bank charges	$14.89 + bank charges
Collection charge	$14.32 per trip	$15.47 per trip
Disconnection of Service		
During regular hours	$29.45	$31.81
After regular hours	$46.45	$50.17
Change of occupancy/Account set-up fee	$30.00	$32.40

Water
2013 Schedule of Rates and Charges (cont'd)

	2012 Approved Rates	2013 Proposed Rates
Arrears certificate charges (non-payment/arrears)	$50.00 per property	$50.00 per property
Disconnect and Reconnect meter at customer request		
Up to 25mm	$59.21	$63.95
Over 25mm	$100.79	$108.85
Install water meter and remote read-out unit at customer request	$226.80	$244.94
Repair damaged meter		
16 and 19 mm	$155.91	$168.38
25 mm and larger	Time and material	Time and material
Meter checked for accuracy at customer's request and found to be accurate		
Up to 25mm	$116.53	$125.85
Over 25mm	$157.47	$170.07
Watermain Tapping Charges		
Tap size of 50 mm or less	$250.00	$270.00
Tap size of greater than 50 mm	$500.00	$540.00
Tapping concrete watermains or tap size of greater than 300 mm	$1,500.00	$1,620.00

Water
2013 Schedule of Rates and Charges (cont'd)

	2012 Approved Rates	2013 Proposed Rates
Water Rate for Temporary Connection for Construction		
Single family structure	$12.98	$14.02
Duplex structure one service line	$12.98	$14.02
Up to 4 units	$16.22	$17.52
5 to 10 units	$24.32	$26.27
11 to 15 units	$32.43	$35.02
16 to 20 units	$40.55	$43.79
21 to 25 units	$48.82	$52.73
26 to 30 units	$56.75	$61.29
31 to 35 units	$64.89	$70.08
36 to 40 units	$73.00	$78.84
41 to 50 units	$81.10	$87.59
Over 50 units	$1.64 per unit	$1.77 per unit
Other structures per 93 m^2 of floor space	$3.30 (minimum charge $8.25)	$3.56 (minimum charge $8.91)
Bulk water users		
Smart Card (per card purchase cost)	$32.40	$34.99
Cost of Water per 1,000 L	$2.68	$2.89
Inspecting waterworks installations/disconnections	$89.76 per hour	$96.94 per hour
Builder and Developer Charges		
Based on actual frontage which directly abuts City right-of-way		
Residential (maximum 50 meters)	$162.75 per meter	$175.77 per meter
Commercial, Industrial and Institutional	$173.09 per meter	$186.94 per meter